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| 09/871,823 | 06/04/2001 | Imants R. Lauks | PAT 484-2 | 1986 |

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EXAMINER

OLSEN, KAJ K

ART UNIT

PAPER NUMBER

1753

DATE MAILED: 05/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/871,823

Applicant(s)

LAUKS, IMANTS R.

Examiner

Kaj K Olsen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 26, 27 and 29-42 is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-12, 14, 16-19, 21-25 and 28 is/are rejected.
- 7) ☒ Claim(s) 6, 13, 15 and 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 4 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Madou et al (USP 4,874,500). Madou was previously cited, but is being relied on for the first time with this office action. Its use here was necessitated by the amendment to the claims.

3. Madou discloses an electrode module that comprises a planar carrier module 12 made of an insulating layer having opposing first and second sides (fig. 3 as an example) with a metal layer 48 divided into at least two metal conductor elements (i.e. the sensing, reference and counter electrodes) (col. 12, lines 20-46). The various electrodes are formed directly onto the carrier module and including a membrane element 30 for imparting chemical sensitivity to the electrode (col. 10, lines 11-30) is deposited onto the second side of the insulating layer. See fig.

3. Electrical contact between the sample fluid and the electrode module is established through the insulating layer.

4. With respect to the claimed foils, it would appear that the substrate 12 and conductor 48 would each read on “foil” giving the claim language its broadest reasonable interpretation.

5. With respect to the membrane extending to provide electrical contact with the metal conductor, electrolyte 28 provides electrical contact to the metal conductors. Alternatively,

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electrolyte 28 can also be a membrane itself (col. 6, lines 38-43) and Madou would thereby have a membrane that extends all the way to the electrical contacts.

6. With respect to the perforation for each electrical contact, see fig. 2.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Madou in view of Rankl et al (Smart Card Handbook, chapter 3).

9. Madou set forth all the limitations of the claim, but did not explicitly recite having the chip module conform to ISO standard 7816. Rankl teaches that this is a standard that is known in the art that finds utility for a number of devices including smart cards (.p. 21). It would have been obvious to one of ordinary skill in the art at the time the invention was being made to utilize existing ISO standards, such as ISO standard 7816, because the use of existing ISO standards allows the device to be utilized with existing data processors also utilizing said ISO standard, thereby increasing the electrode module's utility in the art.

10. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Madou in view of Holker et al (USP 6,484,045).

11. Madou set forth all the limitations of claims (see the rejection above), but did not explicitly set forth the use of a metal layer of copper or copper with nickel and gold. Holker

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teaches in an alternate analyte sensor that copper is a well known electrical conductor utilized in the sensor art and specifically taught the combination of copper with nickel and gold (col. 7, lines 41-45). It would have been obvious to one of ordinary skill in the art at the time the invention was being made to utilize the teaching of Holker with the electrode module of Madou because these particular combinations of metals were found to have great utility as electrodes and the substitution of one known metallic composition for another requires only routine skill in the art.

12. Claims 9-12, 14, 16-19, 21, 22, 24, 25 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Madou (with or without the teachings of Rankl or Holker as utilized above) in view of Pace (USP 4,225,410). Pace was previously cited, but is being utilized for the first time with this office action.

Madou set forth all the limitations of the claims but did not explicitly recite the presence of a housing for the electrode module. Pace discloses in an alternate sensor the use of a housing that encloses the sensor, which facilitates the handling of the liquid samples (col. 6, line 53 through col. 7, line 6). It would have been obvious to one of ordinary skill in the art at the time the invention was being made to utilize the teaching of Pace for the electrode module of Madou in order to control access of the liquid samples to the various electrodes. With respect to the limitations drawn to the use of ISO 2816 or the use of copper, nickel and/or gold, see the rejections above with Rankl and Holker. With respect to how the perforations are cut, the determination of patentability for the claim is based on the product itself. Because the product of the claim is identical to the invention of the prior art the process from which it was made is the

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same as or obvious over the process utilized by the prior art (see *In re Thorpe*, 777 F.2d 695, 698).

13. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Madou and Pace and in further view of Douglas et al (US 2003/0106810). The references set forth all the limitations of the claim, but did not explicitly recite the use of epoxy material for the insulating layer. Douglas teaches in an alternate electrode module that the use of epoxy as an insulating layer over the electrode layer is well known in the art (p. 7, paragraph 0097). It would have been obvious to one of ordinary skill in the art at the time the invention was being made to utilize the teaching of Douglas for the electrode module of Madou and Pace because the substitution of one known insulating means for another requires only routine skill in the art.

Allowable Subject Matter

14. Claims 26, 27 and 29-42 are allowed.

15. Claims 6, 13, 15 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

16. These claims are allowable for the reasons set forth in the previous office action.

Response to Arguments

17. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

18. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kaj Olsen whose telephone number is (571) 272-1344. The examiner can normally be reached on Monday through Thursday from 6:30 A.M. to 4:00 P.M. and on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen, can be reached on 571-272-1342. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Kaj Olsen', with a stylized flourish extending to the right.

Kaj Olsen Ph.D.
Primary Examiner
AU 1753
May 25, 2004